

# **STATEMENT OF WORK FIRE PROTECTION SERVICES (REVIEW/INSPECTION)**

## **OBJECTIVE:**

The objective of the Fire Protection Services (Review/Inspection) program is to facilitate the resolution of a wide range of fire protection issues in support of NIH programs

## **BACKGROUND**

The Division of the Fire Marshal (DFM), Office of Research Services serves as the NIH “Authority Having Jurisdiction” as defined by the National Fire Protection Association and, in that capacity, provides final authoritative judgements required in the application and interpretation of current fire codes and other applicable standards, regulations and policies regarding all aspects of fire safety at the NIH; (2) provides consultation and technical assistance to the NIH and the extramural biomedical research community regarding work practices and facility design and construction concepts that enhance fire safety and includes providing comprehensive fire protection engineering reviews of structure modifications and new construction plans and proposals; (3) provides fire safety information and training; (4) develops methodology for assessing and mitigating fire hazards associated with biomedical research; (5) conducts technical fire investigations; (6) develops NIH policies and procedures regarding fire safety; (7) conducts periodic fire safety surveys to (i) detect hazardous conditions, (ii) measure performance of fire safety devices, and (iii) assess compliance with fire safety policy.

The DFM has a requirement for contractual support in providing fire protection services in the form of fire protection quality assurance design reviews and construction inspections as set forth herein.

## **SCOPE OF WORK**

The Contractor shall provide all labor, supervision, management, and administrative resources necessary for providing fire protection services (review and inspection) for various design and construction projects at the National Institutes of Health (NIH) main campus located in Bethesda, MD, the NIH Animal Center, Poolesville, MD, and the Rocky Mountain Laboratory in Hamilton, Mt.

The Contractor shall provide on-site personnel in accomplishing the requirements set forth herein. The Government shall provide office space for contract personnel as well as furniture and furnishings. All furniture and furnishings shall be used for official business only in the performance of the contract requirements. Government property shall not be used in any manner for personal advantage, business gain, or other personal endeavor by the Contractor or the Contractor’s personnel.

## **Design and Construction Projects**

The Contractor shall be responsible for supplementing DFM in-house fire protection engineers in conducting design reviews, fire protection submittal reviews, construction in progress inspections, and construction final inspections and acceptance tests for all NIH construction and renovation projects at the aforementioned federal installations.

**Upon completion of each review and inspection performed by the Contractor, a copy of all documentation shall be provided to the Office of Research Facilities (ORF) Project Officer and to the Division of the Fire Marshal project file.**

### **Design**

Design reviews shall be conducted by the Contractor to verify conformance with the most current editions of the International Building Code in conjunction with the National Fire Codes and the NIH Design Policy and Guidelines. When a criteria is inconsistent with another, the most stringent requirement shall take precedence.

The ORF Project Officer shall furnish the DFM all design documents for review by the Contractor. In instances where the design includes either an entire new floor plan or modifications to an existing floor plan, the design documents will be forwarded to the Contractor for review at the conceptional or earliest possible stage of design to verify conformance with the *Life Safety Code* (NFPA 101).

When the design includes a hydraulically calculated automatic sprinkler/standpipe system, the Contractor shall review the preliminary fire protection water supply calculations. These calculations shall compare the relationship between the available water supply, as determined by the Designer, and the calculated system water demand for adequacy or the need for the inclusion of a fire pump in the design.

Upon incorporation of the design review comments, a copy of the final (100%) design documents shall be furnished to the Contractor for “back-check” review and subsequent signature approval by the Director, Division of the Fire Marshal (NIH Fire Marshal).

On occasion, the Contractor shall be required to perform a “back-check” review of final (100%) design documents which have been placed on hold and shelved for a period of one year or greater and are “reactivated”. A subsequent signature approval by the Director, Division of the Fire Marshal (NIH Fire Marshal) will be required.

**Design reviews shall be conducted by the Contractor and comments furnished to the ORF Project Officer within a maximum two week turnaround time.**

### **Construction**

Fire protection submittal reviews shall be conducted by the Contractor to verify conformance with the requirements of the construction contract.

The ORF Project Officer shall furnish one set of the DFM approved plans and specifications and three sets of the following fire protection submittals to the Division of the Fire Marshal for review and comment by the Contractor. The DFM approved plans and specifications shall serve as the basis for the Contractor's review.

- (1) Fire Suppression Systems: (Sprinkler systems, standpipe systems, carbon dioxide systems, dry chemical systems, etc.)
  - Manufacturer's catalog data
  - Shop drawings
  - Calculations (where required)
- (2) Fire Alarm Systems:
  - Manufacturer's catalog data
  - Shop drawings
  - Calculations (where required)
- (3) Fire Pumps, Drivers and Controllers:
  - Manufacturer's catalog data
  - Shop drawings
  - Pump Discharge Curves
- (4) Firestopping Material:
  - Manufacturer's catalog data
  - Installation details
- (5) Spray-on Fireproofing Material:
  - Manufacturer's catalog data
  - Fireproofing thickness schedule

**Fire protection submittal reviews shall be conducted by the Contractor and comments furnished to the ORF Project Officer within a maximum two week turnaround time.**

The representative of the Contractor who is assigned to a given project during design shall be available upon request of the ORF Project Officer to attend the preconstruction conference for

the project. The ORF Project Officer shall notify the Division of the Fire Marshal a minimum of two weeks in advance of the scheduled date and time for the preconstruction conference to be attended by the Contractor.

### **Construction In Progress Inspections**

The Contractor, upon request of the ORF Project Officer, shall conduct construction in progress inspections to ensure the construction or fire protection system installation is complete and in conformance with the construction contract prior to concealment.

### **Construction Final Inspections and Acceptance Tests**

Upon completion of the construction project, the Contractor shall conduct a construction final inspection including the acceptance testing of all installed fire protection systems prior to project close-out approval by the Director, Division of the Fire Marshal (NIH Fire Marshal), beneficial occupancy by the government Institute/Center and release of final payment to the construction contractor. The ORF Project Officer shall notify the Division of the Fire Marshal a minimum of two weeks in advance of the scheduled date and time for the construction final inspection/acceptance testing to be performed by the Contractor.

A construction final inspection and acceptance test shall be conducted by the Contractor to ensure the project construction is complete from a fire protection standpoint and all installed fire protection systems are fully operational and in conformance with the construction contract. In addition, the Contractor shall validate the accuracy of the as-built drawings prepared by the construction contractor for each installed fire protection system at the time of the final inspection.

The ORF Project Officer shall furnish the Division of the Fire Marshal one set of the DFM approved construction contract documents and three sets of construction contractor-prepared as-built drawings for each installed fire protection system for use by the Contractor prior to the scheduled date of the construction final inspection.

### **Project Coordination**

The Director, Division of the Fire Marshal (NIH Fire Marshal) is the NIH “Authority Having Jurisdiction” as defined by the National Fire Protection Association and shall provide final authoritative judgement required in the application and interpretation of current fire codes and NIH Fire Protection Policy during the full course of all projects.

The Contractor shall consult and work closely with the NIH Fire Marshal during the performance of all work required under this contract including any incidental assistance required during construction to resolve field problems, verify appropriateness of submittal data being reviewed, and to resolve any matters of design error or omission. **On occasion, the Contractor may also be required to consult directly with various NIH Institute/Center staff. The Contractor shall document and provide a copy of all such significant records of understanding to the NIH Fire Marshal.**

## **QUALITY CONTROL**

The Contractor shall be responsible for the quality of services provided under the terms of this SOW. The Contractor shall establish, plan, provide, and maintain a Quality Control System that ensures consistent quality performance in all areas of the Contract. The quality control system procedures, planning, and all other documentation and data that comprise the quality control system shall be made available to the Director, Division of the Fire Marshal (NIH Fire Marshal) for review. Existing quality control systems or documents that meet the requirements of this Contract may be used. The Contractor shall develop an effective and consistent program of complete and auditable documentation of all Quality Control performed by the Contractor.

### **Contractor Quality Control Program**

The Contractor shall implement a proactive program to achieve and maintain quality performance. The Contractor's program shall ensure SOW requirements are being accomplished in accordance with the specifications of this SOW and industry standards. A sustaining focus throughout the program shall be the attainment of continuous quality improvement. The Program shall emphasize deficiency prevention over deficiency detection.

### **Quality Control Plan**

The Contractor shall maintain a Quality Control Plan(QCP) describing the Quality Control Program. The Contractor's draft Quality Control Plan shall be submitted to the Director, Division of the Fire Marshal (NIH Fire Marshal) 14 calendar days prior to the Contract Base Year period of performance start date based on the plan being submitted with the Contractor's proposal. The Quality Control Plan will be reviewed and comments provided to the Contractor. The Contractor shall make changes based on the comments and submit the final Quality Control Plan within 14 calendar days after receipt of the Director, Division of the Fire Marshal (NIH Fire Marshal) comments. The Contractor shall implement the Quality Control Plan upon receipt of the Director, Division of the Fire Marshal (NIH Fire Marshal) approval. The Contractor shall update the Quality Control Plan continuously as improvements are made in the Program, or as procedures and/or requirements change. The Contractor shall submit any changes in the Quality Control Plan to the Director, Division of the Fire Marshal (NIH Fire Marshal) for approval prior to implementation. At a minimum, the Contractor shall review, update, and submit a revised Quality Control Plan to the Director, Division of the Fire Marshal (NIH Fire Marshal) for approval 14 calendar days prior to the start of an Option Period. This Plan shall reflect the Contractor's current methodology, incorporating the benefits of lessons learned over the previous yearly period of performance.

The Quality Control Plan shall include:

1. A description of the Contractor's Quality Control Program and shall cover all Contract services, specify work to be inspected on either a scheduled or unscheduled basis, and describe how inspections are to be conducted.

2. The name(s) and qualifications of the individual(s) responsible for performing the quality control inspections and the extent of their authority. An employee performing the work shall not inspect his/her own work.
3. Provisions for recording the results of quality control inspections and for recording when corrective actions were taken.
4. Provisions to update and revise the Quality Control Plan during the performance of the Contract.
5. A description of the methods used for identifying and preventing defects in the quality of service performed.
6. A description of the Contractor's approach to accomplishing the Contractor's total Quality Control as specified here-in.

### **Quality Control Program Content**

1. Inspection Program. Included shall be a quality control inspection program covering all general and specific tasks included in the SOW. The Quality Control Program shall specify tasks or areas to be inspected on both a scheduled and unscheduled basis, the manner in which inspections will be conducted, the titles of the individuals who will perform the inspections, and the percentage of the work that will be inspected on a recurring basis.
2. Deficiency Identification and Correction. The Quality Control Program shall include a method of proactively identifying potential deficiencies in outcomes and the quality of services to be performed before the level of performance becomes unacceptable. This shall contain processes for corrective action without dependence upon Government inspection. The Program shall contain process control and process performance measurement procedures to include how the Contractor will affect preventive corrective actions, as opposed to reliance on Government or customer identification of deficiencies prior to resolving the problem.
3. Documentation and Enforcement. The Quality Control Program shall include a method of documenting and enforcing quality control inspections.
4. Surveillance Methods. The Quality Control Program shall contain specific surveillance techniques for all performance services. The surveillance methods shall be comprehensive and adaptable to the reporting system of the Plan

### **PERSONNEL**

During each year of the contract performance period, the Contractor shall provide 9400 direct labor hours. The direct labor hours exclude vacation, sick leave and holidays. In estimating the

direct labor hours required, the following assumptions have been made: 80 hours vacation, 80 hours holiday, and 40 hours sick leave. The labor categories needed to support this Fire Protection Services (Review/Inspection) contract are as follows.

Labor Category	Quantity	Hours
(1) Program Manager	1	1880
(2) Senior Fire Protection Engineer	2	3760
(3) Fire Protection Engineer	1	1880
(4) Administrative Assistant/Management Analyst	1	1880

The Contractor shall be responsible for maintaining satisfactory standards of employee competency, conduct, appearance and integrity. Contractor personnel are subject to the same rules of conduct as Government employees. Contractor personnel shall work in a professional and courteous manner and abide by applicable NIH rules, regulations and procedures. All Contractor personnel shall conform to all security regulations which may be in effect during the contract period. No employee will be permitted on the NIH campus if the employee's presence would be detrimental to the safety of the installation or the accomplishment of the work.

If the performance of on-site Contractor personnel is determined to be substandard in the judgement of the NIH Fire Marshal, the Contractor shall receive written notice of the problem from the NIH Fire Marshal. Within a minimum of two weeks, the Contractor shall apply corrective measures and demonstrate improved performance by the employee. If satisfactory improvement is not observed after this period, the Contractor may be directed to immediately remove the employee from assignment to NIH activities and expeditiously provide a replacement employee.

All personnel employed by the Contractor that perform work directly under this contract shall be trained, competent, and skilled in the performance of the work to which they are assigned. The Program Manager and all Senior Fire Protection Engineers shall be registered fire protection engineers and have a minimum of five (5) years experience in fire protection engineering or related fields. The Program Manager and Senior Fire Protection Engineers shall have demonstrated experience in the following areas:

- Interpretation of the International National Building Code when used in conjunction with the National Fire Codes
- Building Construction
- Means of Egress
- Fire protection water supplies
- Fire pumps
- Automatic fire suppression systems
- Automatic fire alarm systems
- Fire protection for health care facilities and laboratories using chemicals

The Administrative Assistant/ Management Analyst shall have a minimum of 5 years administrative experience and possess strong computer and communication skills. The

individual shall also be well versed in performance management, performance monitoring, performance data collection and be fully capable of developing spreadsheets, tables, charts, graphs and power point presentations to clearly document performance objectives of the contract have been met.

All Contractor personnel shall possess all personal licenses, permits and certifications required to perform their assigned duties.

### **SUPERVISION**

The Government shall not exercise any supervision or control over Contractor personnel performing services under this contract. Such Contractor personnel shall be accountable solely to the Contractor who, in turn, shall be accountable to the Government.

The Contractor shall provide personnel who are well qualified to perform the required services, apply proper supervisory techniques, and keep personnel informed of all changes and methods of operation.

### **REPORTING REQUIREMENTS**

**The Contractor shall prepare the following monthly reports for submission to the Director, Division of the Fire Marshal (NIH Fire Marshal). All monthly reports shall be due on or before the 15<sup>th</sup> day of the following month.**

(1) Reports

- (a) Monthly Status Report - one copy of a brief monthly status report outlining each service area provided documenting the number of outputs, staff hours expended and average turnaround times.
- (b) Monthly Quality Control Report - one copy to include all activities performed.

### **GOVERNMENT-FURNISHED PROPERTY**

The Government agrees to furnish to the Contractor for use in direct performance of this contract, the items listed below.

<u>Description</u>	<u>Quantity</u>
Work Desk and Chair	5
Personal Computer	5
Telephone	5
Copy machine	1



Fax machine	1
Printer	2

In the performance of this task, the Contractor shall have access to two (2) Government-Furnished vehicles similar to their availability to Government personnel within the Division of the Fire Marshal.

The Contractor shall have access to the entire Division of the Fire Marshal reference library consisting of the National Fire Codes, the International Building Code, the NIH Design Policies and Guidelines and other fire-safety related codes, standards, guidelines and technical references.